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The Impact of *In Our Own Voice* on Stigma

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Abstract

The stigma of mental disorders is a major public health concern and the development of effective stigma reduction programs has become a priority. This study examined the effectiveness of *In Our Own Voice* (IOOV), a stigma reduction program offered by the National Alliance on Mental Illness (NAMI), compared to psychoeducation. The presentations focused on bipolar disorder and to evaluate the specificity of effects, measures of stigma related to bipolar disorder, unipolar depression, schizophrenia, and general mental illness were included. Participants were 43 undergraduates exposed to both IOOV and psychoeducation in a randomly assigned, crossover design reversing the order of exposure. The IOOV presentation significantly decreased stigma for bipolar disorder compared to psychoeducation regardless of order of exposure. Also, IOOV led to significant stigma reduction associated with unipolar depression and approached significant for general mental illness, but not schizophrenia. Possible mechanisms behind IOOV's effect include positive contact with individuals with mental disorders and greater stigma associated with biomedical models of mental disorders emphasized in the psychoeducation condition. Suggestions for future research include evaluating IOOV for other disorders and examining the stability of effects over time.

The Impact of *In Our Own Voice* on Stigma

Stigmatizing attitudes about mental disorders and treatment shared by both the general public and individuals with the stigmatized condition are a major public health concern (Corrigan, 2005). Stigma negatively affects self-esteem, social status, and social networks (Cooper-Patrick et al., 1997; Link, Mirotznik, & Cullen, 1991; Ritscher, Otilingam, & Grajales, 2003; Sirey et al., 2001). Furthermore, individuals with concealable stigmatized conditions such as a mental disorder often decide to avoid the repercussions of stigma by intentionally hiding their conditions, thereby decreasing the likelihood of treatment seeking and retention (Corrigan & Matthews, 2003). For example, in one study roughly one-half of adult participants reported believing that seeking help would risk being stigmatized (Barney, Griffiths, Jorm, & Christensen, 2006), with 44% and 38% stating that they would be embarrassed to see a psychiatrist and a psychologist, respectively. The U.S. Surgeon General has identified stigma as a primary cause for the underdiagnosis and undertreatment of mental illness (Satcher, 1999). Consequently, major governmental, activist, and advocacy organizations have created and disseminated stigma reduction programs around the country (e.g., Depression and Bipolar Support Alliance, Substance Abuse and Mental Health Services Administration).

One such program is *In Our Own Voice* (IOOV) offered by the National Alliance on Mental Illness (NAMI). IOOV differs from other stigma reduction programs in that it is presented by individuals with a diagnosed mental disorder who interweave their personal stories into the presentations. Consequently, IOOV can be a podium to target the stigma of any severe psychological disorder, including bipolar disorder, unipolar depression, and schizophrenia. Currently, IOOV is active in 37 states and has been presented to over 100,000 individuals nationwide (NAMI, 2007). Although IOOV is widespread, its effectiveness is unclear.

Evaluation of the effectiveness of IOOV in stigma reduction is just beginning, with only one available published study to date. Wood and Wahl (2006) compared the effect of IOOV on stigma reduction to a control presentation on psychology careers. Those in the IOOV condition demonstrated significant positive pre-post changes on three variables: knowledge about mental illness, positive attitudes about individuals with mental illness, and willingness to accept individuals with mental illness. The control condition did not demonstrate significant changes. A main limitation of this study is that the control group did not target stigma and therefore would not be expected to change stigma or other perceptions of individuals with mental illness, so it is unclear how IOOV would compare to an active control condition.

In addition, Wood and Wahl (2006) assessed broad domains related to stigma associated with mental illness, but additional information regarding the specificity and generalizability of IOOV effects on stigma reduction is also needed. In particular, the relation between the specific diagnoses of the presenters and stigma reduction for specific disorders has not been evaluated. It is possible that an IOOV presentation on a specific disorder may reduce stigma related to that disorder but not that of other disorders. Research is clear that different disorders have different etiologies, symptom profiles, functional consequences, and treatment indications and prognoses. For example, the genetic bases are quite clear for certain disorders (e.g., schizophrenia, bipolar disorder) even if the exact genetic mechanisms have yet to be uncovered (reviewed in Pennington, 2002). The genetic basis of unipolar depression, on the other hand, is less clear. There is decent evidence for the existence of biological vulnerabilities to depression, although most agree that environmental variables are equally-to-more important (Monroe & Dupue, 1991; Thase, Jindal, & Howland, 2002). Family, twin, and adoption studies support the existence of inherited vulnerability factors, with heritability estimates ranging from 20-45% for milder

depression and possibly higher for moderate to severe depression (Wallace, Schneider, & McGuffin, 2002). These distinctions are quite relevant to stigma and stigma reduction because stigma has been shown to be related to the degree to which individuals make genetic attributions about the causes of mental illness (Phelan, Cruz-Rojas, & Reiff, 2002; Phelan, Yang, & Cruz-Rojas, 2006). Thus, an IOOV presentation given by individuals with bipolar disorder may not generalize to stigma reduction for unipolar depression.

No current research has examined the specificity of effects of stigma reduction programs. In fact, there is some reluctance within the advocacy community to distinguish between disorders, as such distinctions may allow for the differential discrimination of individuals with some diagnoses compared to other. However, literature on outgroup membership is suggestive. Specifically, positive contact with individuals of an outgroup decreases stigma associated with that specific group, but commonly lacks generalization to other groups (Hamburger, 1994). Knowledge regarding specificity of effects would have important implications in the development and modification of IOOV and other stigma reduction programs and may require stigma program developers to consider specific disorders more thoroughly.

The current study replicates and extends Wood and Wahl (2006) in two ways. First, a control group reasonably expected to reduce stigma, a psychoeducational control group, is included. Second, the specificity of effect is addressed by evaluating the effects of an IOOV presentation on stigma related to the specific corresponding disorder, bipolar disorder, as well as assessment of stigma reduction related to other disorders.

Bipolar disorder is one of the most common mental disorders addressed in stigma reduction programs such as IOOV; other commonly addressed include schizophrenia and unipolar depression. Bipolar disorder affects roughly 5.7 million American adults yearly

(Kessler, Chiu, Demler, & Walters, 2005). Although research indicates that with proper care, bipolar disorder can be stabilized and managed even in the most severe forms, the public holds considerable misconceptions about this disorder which contribute to stigmatizing attitudes (National Mental Health Association, 2000). There is also evidence that these negative stigmatizing attitudes associated with bipolar disorder have negative repercussions, including being a significant barrier to recovery (Perlick et al., 2001).

Specifically, in the current study, we predicted that an IOOV presentation related to bipolar disorder would be more effective than psychoeducation in reducing the stigma associated with bipolar disorder. The psychoeducation, a lecture on bipolar disorder by a clinical psychologist, represented an active control condition reasonably expected to have an effect on stigma reduction. This prediction is based upon general research suggesting that an educational approach to stigma reduction results in mild attitude change (e.g., Penn, Guynan, Daily, Spaulding, Garbin, & Sullivan, 1994), but that this effect can be enhanced by including positive contact with an individual with a mental disorder (Reinke, Corrigan, Leonard, Lundin, & Kubiak, 2004). Also, laboratory research consistently indicates that direct positive contact with individuals diagnosed with a mental illness reduces stigma (Corrigan, River, et al., 2001; Holmes, Corrigan, Williams, Canar, & Kubiak, 1999). Second, regarding specificity of effect, we predicted that an IOOV presentation on bipolar disorder would significantly decrease bipolar disorder stigma and general mental illness stigma, but not unipolar depression stigma or schizophrenia stigma.

Method

Participants and Procedures

Participants were 43 undergraduate psychology students enrolled in an Abnormal Psychology course at the University of Wisconsin-Milwaukee. The sample was 69.8% female with a mean age of 23.12 (*SD* = 6.94, range = 19 to 61). Regarding ethnicity, 88% were Caucasian, 2% Asian American, 2% African American, 2% Mexican American, and 5% "other."

The current study was conducted within an Abnormal Psychology course. All individuals enrolled in the Abnormal Psychology course were given the option to participate and provided informed consent. Because the information presented as part of this study was relevant to the course, we felt it was important that all participants had the opportunity to view both presentations. Thus, a cross-over design was employed in which the IOOV presentation and the psychoeducation lecture were both given simultaneously in different rooms consecutively during two class periods. Participants were randomly assigned to one of two conditions representing two presentation orders. In condition 1, 22 participants saw IOOV followed two days later by psychoeducation. In condition 2, 21 participants saw psychoeducation followed two days later by IOOV. Participants completed questionnaire packets prior to seeing the first presentation (T1), after seeing the first presentation (T2), and after seeing the second presentation (T3). Due to drop outs, the sample size at Time 2 was 41 and Time 3 was 37.

Presentations

IOOV. Two trained, experienced NAMI presenters diagnosed with bipolar disorder delivered the IOOV presentations. Consistent with NAMI's recommendations, five main areas were addressed in the presentations: Dark Days, Acceptance, Treatment, Coping Strategies, and Successes, Hopes and Dreams (NAMI, 2007). The IOOV video was not used; this was consistent with how the two presenters typically present IOOV but inconsistent with NAMI's recommendations. The first presenter was a Caucasian female in her 50's who described her

childhood, depressive episodes, manic episodes, and previous hospitalizations but focused on her current successes as a librarian, artist, and community outreach advocate. The second presenter was a Caucasian male in his 50's who also described his childhood, depressive episodes, manic episodes and related specific experiences of being treated as if he were dangerous and violent by members of his church, police and hospital staff. He also described his successful career as a consultant to scientific investigations of Positron Emission Tomography scanners. The IOOV presentations were 50 minutes in length, with each presenter speaking for approximately half the time. A question-answer session was not included following IOOV (or Psychoeducation, below) because of potential confounding effects, such as different questions asked and thus different topics discussed between the two conditions. The lack of a question-answer session was also inconsistent with NAMI's recommendations for IOOV.

Psychoeducation. Psychoeducation was presented by a 50-year-old Caucasian female clinical psychologist who was the lecturer in the Abnormal Psychology course. The lecture was the typical lecture on bipolar disorder given by this lecturer, using the text by Raulin (2003). The lecture covered symptoms of hypomania and mania, diagnostic categories of bipolar bisorder (Biploar I, Bipolar II, Cyclothymia), prevalence, course, and etiology, with an emphasis on genetic contributions and biological factors. The psychoeducation presentations were 50 minutes in length. Lectures on unipolar depression and schizophrenia already had been given in this course at the time of this study.

Measures

Level of Familiarity Questionnaire. The Level of Familiarity Questionnaire (LOFQ) assesses familiarity with individuals with mental illness (Corrigan, Edwards, Green, Diwan, & Penn, 2001; Holmes et al., 1999). The LOFQ consists of 11 statements about familiarity with

mental illness ranging from intimate contact with people with mental illness to little intimacy. Participants identify every statement that reflects their experience with persons with severe mental illness. Participants' LOFQ total score reflects the most intimate situation indicated. Greater scores reflect greater degree of intimacy. Statements range from, "I have observed a person that I was aware had a severe mental illness," to "I have a severe mental illness."

Social Distance Scale. The Social Distance Scale (SDS; Bogardus, 1928; Link, 1987) assesses social distance towards individuals with mental illness and is frequently used in stigma research for assessing behavioral intentions and discrimination against individuals with mental illness (Corrigan, River, et al., 2001; Link, Cullen, Frank, Wozniak, 1987; Reinke et al., 2004). The SDS consists of 7 questions assessing how willing participants are to be in specific situations with individuals with a mental disorder. Participants rate each item on a 4-point scale with lower scores indicating more willingness. Questions include, "How would you feel about renting a room in your home to someone with severe mental illness?" and "How about as the caretaker of your children for a couple of hours?" The scale has shown acceptable reliability and validity (Corrigan, Markowitz, Watson, Rowan, & Kubiak, 2003).

For the purposes of this study, the SDS was modified to assess social distance towards individuals with bipolar disorder (BSDS), unipolar depression (DSDS), and schizophrenia (SSDS). The format and instructions of the scale were maintained but the wording of specific items was changed to focus on each specific disorder. For example, the question described above was modified for bipolar disorder to be, "How would you feel about renting a room in your home to someone with Bipolar Disorder?" and for unipolar depression to be, "How would you feel about renting a room in your home to someone with Unipolar Depression?" At T1 in

this study, the original SDS achieved α = .81, and the bipolar disorder, unipolar depression, and schizophrenia modifications achieved α's of . 77, .75, and .81, respectively.

Results

Preliminary Analyses

There were no significant differences between conditions in age or gender at T1. Level of stigma on the SDS, BSDS, DSDS, and SSDS did not differ significantly across conditions at T1, indicating similar levels of stigma (see Table 1). At T1, participants demonstrated moderate levels of stigma, which allowed for significant variability of scores over the three time points. Scores on the SDS were consistent with other studies' pre-intervention levels of stigma (Compton, Esterberg, McGee, Kotwicki, & Oliva, 2006; Corrigan, Edwards, et al., 2001). No differences were found on the LOFQ between Condition 1 (M = 7.33; SD = 2.39) and Condition 2 (M = 7.14; SD = 2.71) with both conditions reporting moderate but not high levels of intimacy with individuals with severe mental illness. Furthermore, there were no significant differences on these variables between individuals who returned for T2 and T3 and those who did not.

Social Distance

To analyze the cross-over design, we followed the suggestions of Tabachnick & Fidell (2007, pp. 510-512) for 2 (orders or sequences of interventions) × 2 (time periods) designs, but because we had three time periods we additionally entered T1 (pre-presentation scores) as a covariate. In this analysis, a main effect for period would indicate a significant difference between scores at T2 (regardless of whether the presentation was IOOV or psychoeducation) and scores at T3, a main effect for order would indicate that there were carryover effects from one presentation at T2 to the other at T3, and a significant order × period interaction would indicate a difference between IOOV and psychoeducation. This interaction was the primary focus of our

analyses. When an interaction was found, we followed up with specific tests at Time 2 and Time 3 to determine the exact source of the interaction. Because carryover effects (a main effect for order) suggest that a reaction to a presentation at Time 3 may have been at least partially contaminated by the other presentation at Time 2, when significant carryover effects were present we ignored the Time 3 data and only conducted Time 2 analyses (Tabachnick & Fidell, 2007). We conducted this analysis separately for SDS, BSDS, DSDS, and SSDS scores. Table 1 presents the means and standard deviations for these analyses. In addition, to examine the within subject effects of IOOV and psychoeducation, paired sample t-tests were conducted with T1 and T2 scores as the paired variables for each condition.

Bipolar Disorder Stigma. There were no significant main effects for period, F (1, 33) = .001, p = .976, or order, F (1, 33) = 3.614, p = .066**.** Although the main effect of order was not significant, it was approaching significance; the analyses below further explore and clarify this finding. A significant interaction between period and order was found, F (1, 33) = 6.016, p = .020. To explore the interaction and the possibility of carryover effects, we performed separate analyses for the Time 2 comparison between IOOV and psychoeducation (with Time 1 as a covariate) and the Time 3 comparison between IOOV and psychoeducation (with Time 1 as a covariate). The Time 2 analysis found significant differences, F (1, 37) = 41.822, p = .006, but not the Time 3 analyses, F (1, 33) = .148, p = .703. This is displayed graphically in Figure 1, and shows a clear effect of the IOOV presentation at both Time 2 and Time 3 on BSDS scores. At Time 2, the IOOV presentation resulted in significantly lower BSDS scores compared to psychoeducation. At Time 3, the IOOV presentation resulted in a large drop in BSDS scores which reversed the significant Time 2 findings resulting in relative equivalence between conditions. In addition, paired sample t-tests were conducted with T1 and T2 BSDS as the

paired variables for each condition. Individuals presented IOOV experienced a significant decrease in bipolar disorder stigma between T1 and T2, $t(19) = 2.239$, $p = .037$. Those presented psychoeducation did not report a significant change in bipolar disorder stigma between T1 and T2, $t(19) = -1.135$, $p = .270$.

Mental Illness Stigma. There was no significant main effect for period, $F(1, 33) = 1.516$, $p = .227$, but there was a significant effect of order $F(1, 33) = 7.905$, $p = .008$, indicating differential carryover effects. As a result, we only analyzed the Time 2 comparison between IOOV and psychoeducation (with Time 1 as a covariate). This analysis was significant, $F(1, 37) = 7.750$, $p = .008$, in that IOOV decreased stigma significantly more than psychoeducation. Paired sample t-tests were conducted with T1 and T2 SDS as the paired variables for each condition. Individuals presented IOOV did not experienced a significant change in mental illness stigma between T1 and T2, although it approached significance, $t(19) = 1.981$, $p = .062$. Individuals presented psychoeducation did not report a significant change in mental illness stigma between T1 and T2, $t(19) = -1.442$, $p = .166$.

Unipolar Depression Stigma. There was no significant main effect for period, $F(1, 33) = .223$, $p = .640$, but there was a significant effect of order $F(1, 33) = 10.565$, $p = .003$, indicating differential carryover effects. As a result, we only analyzed the Time 2 comparison between IOOV and psychoeducation (with Time 1 as a covariate). This analysis was significant, $F(1, 37) = 9.197$, $p = .004$, in that IOOV decreased stigma significantly more than psychoeducation. Paired sample t-tests were conducted with T1 and T2 DSDS as the paired variables for each condition. Individuals presented IOOV experienced a significant decrease in unipolar depression stigma between T1 and T2, $t(19) = 2.303$, $p = .033$, whereas individuals presented

psychoeducation experienced a significant increase in unipolar depression stigma between T1 and T2, $t(19) = -2.599$, $p = .018$.

Schizophrenia Stigma. There were no significant main effects for period, $F(1, 33) = 2.913$, $p = .097$, or order, $F(1, 33) = 1.912$, $p = .176$. The interaction between period and order also was not significant, $F(1, 33) = .139$, $p = .712$. Similarly, paired sample t-tests indicated that individuals presented IOOV did not experienced a significant change in schizophrenia stigma between T1 and T2, $t(19) = -.254$, $p = .802$. Individuals presented psychoeducation also did not report a significant change in schizophrenia stigma between T1 and T2, $t(19) = -1.234$, $p = .232$.

Discussion

The current study is the first to compare IOOV to an active control condition, psychoeducation, ostensibly designed to reduce stigma. IOOV was more effective than psychoeducation at reducing the stigma of bipolar disorder, unipolar depression, and mental illness in general. IOOV's impact on the stigma of bipolar disorder was quite clear, resulting in significantly decreased stigma compared to psychoeducation after the first set of presentations and, through the cross-over design, reversal of these significant findings after the second set of presentations. Within subject analyses comparing T1 and T2 scores for stigma of bipolar disorder strengthened this finding. The strength of the effect (the effect size at Time 2 was .64) and the fact that it was reversed when psychoeducation was presented at Time 3 suggest that, for bipolar disorder, attitudes and beliefs are quite malleable, IOOV can have a powerful positive effects, but other messages may have negative effects. In other words, the message really matters here.

Most research on stigma and stigma reduction, including the prior IOOV study (Wood & Wahl, 2006), has focused on a generic conceptualization of mental disorders rather than specific

disorders. The current study examined the effects of IOOV and psychoeducation on disorder specific stigma as well as the stigma of mental illness in general. Overall, as hypothesized, the stigma of bipolar disorder and mental disorders in general were positively impacted by IOOV. Interestingly, IOOV also had a positive impact on the stigma of unipolar depression but not schizophrenia. In some ways this is not surprising because bipolar disorder and unipolar depression are often grouped together as mood disorders, as they were in this Abnormal Psychology course. Furthermore, in the IOOV presentation the presenters discussed their experiences of both manic and depressive episodes, but there was no discussion of the possibility that individuals who experience only depressive episodes would receive a different diagnosis (e.g., Major Depressive Disorder) with different etiologies and treatment implications. In contrast, schizophrenia, in the context of an Abnormal Psychology course, is generally treated separately and would not be expected to be impacted by a presentation on bipolar disorder. These findings highlight both the importance of disorder specific anti-stigma programs (because the IOOV program affected stigma of bipolar disorder but not schizophrenia) and perhaps a confusion in the discriminability of bipolar disorder and unipolar depression in anti-stigma messages.

The specific mechanisms through which IOOV was more effective than psychoeducation are unclear. One likely candidate is positive contact, as previous research has found that positive contact with individuals with mental disorders, such as the contact in IOOV, has a more profound effect on stigma reduction than education alone (Reinke et al., 2004), which only mildly decreases stigma (Penn et al., 1994). Another possibility is the relative emphasis on genetic/biological factors between the two presentations, as previous research has found that stigma reduction messages that heavily emphasize genetic/biological factors are less successful

at stigma reduction (Brockington, Hall, Levings, & Murphy, 1993; Walker & Read, 2002) and in some cases lead to increases in stigma (Lam, Salkovskis, & Warwick, 2005; Mehta & Farina, 1997; Rusch, Kanter & Brondino, 2007; Phelan, Cruz-Rojas, & Reiff, 2002; Phelan, Yang, & Cruz-Rojas, 2006). For example, Farina, Fisher, Getter, and Fischer (1978) found that individuals exposed to a biological message about mental illness compared to a psychosocial message were more helpless about solving mental health problems and reported engaging in less effort to deal with mental health problems. More recently, Walker and Read (2002) found that a biological message increased perceptions of dangerousness and unpredictability of individuals diagnosed with schizophrenia. Similarly, Lam and colleagues (2005) found that individuals exposed to a biological message rated those with mental disorders as less curable, more disabled, and more likely to harm themselves and require frequent hospitalizations. In relation to the current study, the psychoeducational lecture heavily emphasized biological factors (e.g., a statement that bipolar disorder has one of the highest genetic loadings of all major psychiatric diagnoses), while the IOOV presenters instead focused on their personal stories and spoke little of etiology.

This previous research on the stigmatizing effects of biological messages lends some explanation for the current finding that the psychoeducational lecture appears to have increased stigma, not for bipolar disorder but for unipolar depression. It is possible that a biological message's toxic effect on the stigma of unipolar depression can be generalized from a biological lecture on bipolar disorder. Again this highlights potential problems with the discriminability of the two disorders and the importance of keeping the messages distinct. This finding also requires replication before confident conclusions can be drawn.

Limitations and Future Directions

This study is limited by the use of undergraduate, abnormal psychology students, who differ from typical IOOV audiences because they already had demonstrated an interest in mental health issues and had been presented some course material. They also already had formed a relationship (good or bad) with the professor who presented the psychoeducation condition in this experiment, and this may have influenced their reactions to it. IOOV and related anti-stigma programs are typically presented to community groups who consist of individuals with diagnosed mental disorders, individuals with diagnosed family members, or individuals otherwise sensitive to the topic, and are presented by individuals with whom the audience is unfamiliar. Future studies would benefit from evaluations of community and consumer samples. In addition, NAMI recommends that IOOV presentations include a video component which was not used in the current study. Because the current presenters chose not to incorporate the video, it remains an open question to what extent the video typically is used by IOOV presenters and how it specifically influences the impact of the presentation. Furthermore, to reduce potential confounding effects, a question-answer session was not included following IOOV. The interactive nature of these question-answer sessions may heighten the effectiveness of IOOV by increasing contact with the presenters, which has been shown to decrease stigma (e.g., Reinke et al., 2004). The lack of video and question-answer session limits the generalizability of the current findings, and future research would benefit from including these IOOV components in research on IOOV.

The study is also limited by the use of modifications of the Social Distance Scale as the primary dependent measures. This scale was used because it is well accepted and the concept of social distance was easily modifiable and applicable to the several disorders under investigation in the current study. Future research would benefit from including additional measures of stigma

that more fully explore the nature of changes that may result from exposure to IOOV. In addition, the format of the four versions of the SDS did not allow for presentation of the versions in different orders, thus order effects may confound the current findings. Future research would benefit from counter balancing the order of measures. An additional limitation was the small sample size, which limited power and prevented the use of Bonferroni corrections. However, the significant findings achieved with this small sample suggest that the findings may be quite robust (for example, the Time 2 comparison between IOOV and psychoeducation for bipolar disorder achieved a relatively large effect size).

Furthermore, future studies would benefit from inclusion of follow-up time points to determine whether the programs had a lasting effect on stigma reduction. The cross-over design complicated our ability to assess the stability of effects over time. Some measures (depression and general mental illness) evidenced carry-over effects, suggesting some temporal stability (at least two days), but interestingly our measure of bipolar disorder stigma did not evidence a carry-over effect. Future studies would benefit from additional measures of potential positive benefits, including behavioral changes and, most importantly, changes in rates of treatment seeking in diagnosed individuals. Finally, future research on IOOV and other anti-stigma programs should focus on other disorders (e.g., unipolar depression, schizophrenia) as well as bipolar disorder. Because the effects of psychoeducation on stigma reduction may also be disorder specific, future research should include active control groups and investigate disorder specific comparative effects between IOOV and these controls.

Conclusion

This research represents an important step in the evaluation of IOOV, NAMI's anti-stigma program that has and is being disseminated nationwide to large numbers of individuals.

The current study suggests an IOOV presentation results in at least short term benefits over and above psychoeducation in terms of attitude change, although the stability of these benefits over time and their relation to behavior change, including treatment seeking, are unknown. The current study also suggests the possibility of confusion in the discriminability of bipolar disorder and unipolar depression in anti-stigma messages. We tentatively suggest that anti-stigma campaigns need to draw attention to the distinct aspects of bipolar disorder and unipolar depression and clearly differentiate them from one another to provide the most effective and accurate portrayal of the disorders and maximize stigma reduction. This highlights the great need for more research on this topic, especially in light of current and past findings that heavily used biological psychoeducational messages which may in fact at times increase stigma.

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Table 1

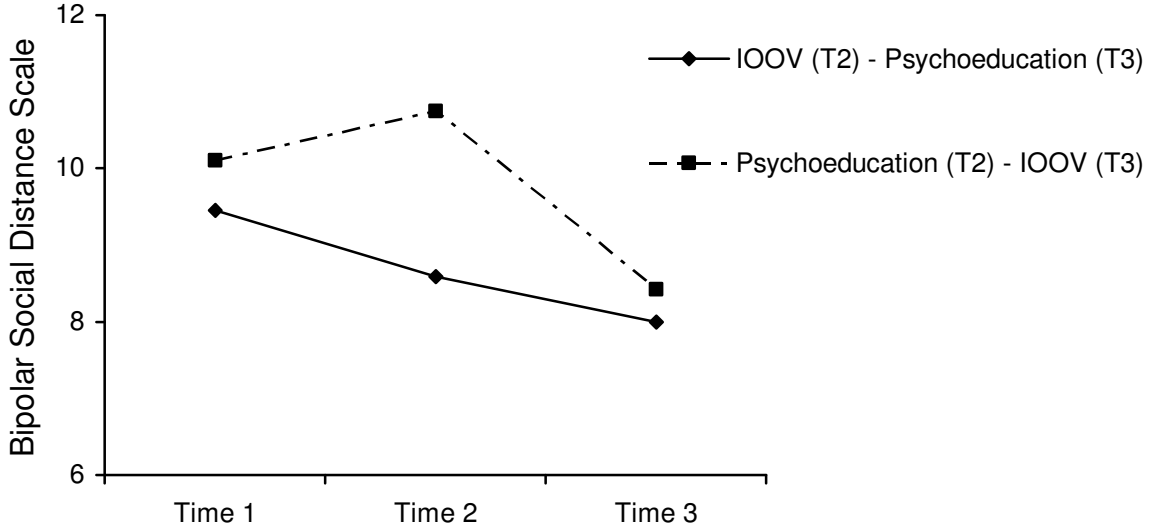
Level of Stigma on Social Distance Scales by Condition and Time

Order	Time 1		Time 2		Time 3	
	M	*SD*	*M*	*SD*	*M*	*SD*
	Social Distance Scale					
IOOV (Time 2) – Psychoeducation (Time 3)	10.00	4.66	8.64	3.40	8.17	3.65
Psychoeducation (Time 2) – IOOV (Time 3)	9.95	3.50	10.90	3.68	9.21	3.48
	Bipolar Social Distance Scale					
IOOV (Time 2) – Psychoeducation (Time 3)	9.45	3.68	8.59	3.35	8.00	2.91
Psychoeducation (Time 2) – IOOV (Time 3)	10.10	4.01	10.75	3.58	8.42	3.47
	Depression Social Distance Scale					
IOOV (Time 2) – Psychoeducation (Time 3)	9.90	3.70	8.95	3.64	7.61	3.13
Psychoeducation (Time 2) – IOOV (Time 3)	8.10	3.55	9.45	3.86	7.58	3.17
	Schizophrenia Social Distance Scale					
IOOV (Time 2) – Psychoeducation (Time 3)	11.00	4.45	11.18	3.97	9.44	3.76
Psychoeducation (Time 2) – IOOV (Time 3)	11.80	3.99	12.50	3.90	10.79	4.78

Note. Possible range of scores on Social Distance Scales is 0-21 with higher scores indicating greater stigma.

Figure Caption

Figure 1. Bipolar Social Distance Scale scores for the In Our Own Voice (Time 2) – Psychoeducation (Time 3) condition and the Psychoeducation (Time 2) - In Our Own Voice (Time 3) condition at Time 1, Time 2, and Time 3. Range of possible scores is 0 to 21 with higher scores indicting greater stigma.


12
10
8
6
Bipolar Social Distance Scale
Time 1
Time 2
Time 3
IOOV (T2) - Psychoeducation (T3)
Psychoeducation (T2) - IOOV (T3)